5

10

15

20

# METHOD OF MANUFACTURING A MASK SOCK

#### FIELD OF THE INVENTION

The present invention relates to a method of manufacturing a mask sock. More particularly, the method includes the step of attaching a three-dimensional, molded latex facial mask to a predetermined position on an outer surface of a sock. The latex mask may take the form of a variety of characters such as an animal, a human, a cartoon animation, an insect, a bird, a fish and the like.

# **BACKGROUND OF THE INVENTION**

Socks and methods of manufacturing such socks are well known in the art. Further, ornaments to various types of clothing and footwear are also known in the art.

There remains a need for an easy and inexpensive method of manufacturing a mask sock wherein an outer latex layer, which forms a mask, is attached to the top of a foot engaging section of the sock.

#### **DESCRIPTION OF THE PRIOR ART**

Socks having various designs, structures, configurations, materials of construction and methods of manufacturing have been disclosed in the prior art. For example, U.S. Patent No. 2,677,004 to SANSON discloses the concept of ornamentation of knitted hosiery or socks. The invention particularly relates to a means for affixing and detaching ornaments to hosiery or socks. This is accomplished through means of clamps which engage the hosiery fabric and

detachably secure the ornament to it. This prior art patent does not disclose or teach the method of manufacturing the mask sock of the present invention.

U.S. Patent No. 4,324,054 to ROVINSKY discloses a flexible child's slipper which has a night light associated therewith which may be selectively actuated by each step of the child as the sock flexes with each step. The night light includes a hollow transmissive three dimensional character rendition which contains an illumination apparatus inside. This prior art patent does not disclose or teach the method of manufacturing the mask sock of the present invention.

5

10

15

20

U.S. Patent No. 5,058,293 to VILLAR discloses novel footwear in which the upper front portion has an animated face with movable eyes. The footwear comprises an inner sole, an outer sole, and an upper shoe surface affixed together in a wearable relationship, with an arch-shaped support member located in a forward interior portion of the footwear. The upper portion of the arch is in contact with the interior of the upper shoe surface, and its opposite lower edges are affixed to edge portions of the outer sole. The eye members are rotated each time the foot of the user presses down on a treadle member. This prior art patent does not disclose or teach the method of manufacturing the mask sock of the present invention.

U. S. Patent No. 6,189,240 to COWGILL et al. discloses a novel shoe embodying a caricature of the head of an animal including a sole and an upper which cooperate to form a foot-receiving compartment there between. The sole and the upper are configured such that a mouth of the caricature defines an entry for the foot-receiving compartment. A first portion

of the upper is attached to the sole and forms a lower jaw of the caricature. A second portion of the upper extends from the toe and forms an upper jaw of the caricature. The upper second portion articulates relative to the entry of the foot-receiving compartment between open and closed positions and fasteners are provided for releasably securing the upper second portion in the closed position. The shoe may be displayed on a support in the form of a headless animal, wherein the shoe is positionable on the support such that the addition of the shoe creates the appearance of a completed animal. This prior art patent does not disclose or teach the method of manufacturing the mask sock of the present invention.

U. S. Patent No. 6,276,074 to MARTIN discloses a slipper in combination with a hand puppet. The slipper comprises a sole and an associated upper attached to the sole and forming therewith a foot pocket having an inlet opening for reception of a person foot. Decorations is provided on the upper representing a puppet character such as a head. Either a set of finger slots or a pocket is provided in the sole so that a person, by inserting their fingers into the slots or by insertion of their hand into the pocket, can manipulate the puppet character in the manner of a glove puppet. This prior art patent does not disclose or teach the method of manufacturing the mask sock of the present invention.

None of the prior art patents teach or disclose the particular method of making the mask sock of the present invention that includes the attachment of an outer latex layer, which forms a mask, to a predetermined position on the outer surface of a sock member which forms the mask sock.

Accordingly, it is an object of the present invention to provide a method of manufacturing a mask sock that includes the attachment of an outer latex layer, which forms a mask, to a predetermined location on the outer surface of a sock member of the mask sock.

Another object of the present invention is to provide a mask sock that includes a mask section that is in the form of an animal, a human, a cartoon character, a bird, a fish and the like.

5

10

Another object of the present invention is to provide a mask sock that includes a mask section that is made from materials selected from the group consisting of latex, cotton, cotton-polyester, leather, fur, faux fur, linen, rayon, nylon, plastic and the like.

A further object of the present invention is to provide a method of manufacturing a mask sock that can be mass produced in an automated and economical manner and the mask sock is readily affordable by the consumer.

# **SUMMARY OF THE INVENTION**

In accordance with the present invention, there is provided a method of making a mask sock, comprising the steps of: forming a sock having a leg engaging section, an ankle engaging section and a foot engaging section; forming a mask from a material selected from the group consisting of plastic, latex and fiber; forming a composite mask member including the mask, and a layer of inner filler material in contact with the mask; the foot engaging section having an outer surface for receiving the layer of the filler material; and attaching the composite mask member to the outer surface of the foot engaging section by connecting means that include gluing, stapling and stitching.

10

5

# **BRIEF DESCRIPTION OF THE DRAWINGS**

Further objects, features and advantages of the present invention will become apparent upon the consideration of the following detailed description of the presently-preferred embodiment when taken in conjunction with the accompanying drawings, wherein:

Figure 1 is a front perspective view of the mask sock of the preferred embodiment of the present invention showing the mask sock in its assembled configuration and in operational use thereof;

5

10

15

Figure 2 is a cross-sectional view of the mask sock of the preferred embodiment of the present invention take along lines 5-5 of Figure 2 showing an outer surface of a sock member, a filler material layer and a latex mask layer that forms the mask sock;

Figure 3 is a exploded perspective view of the mask sock of the present invention showing the major component parts of the unassembled configuration of the mask sock;

Figure 4 is a front perspective view of the mask sock of the first alternate embodiment of the present invention showing the mask sock in its assembled configuration and in operational use thereof;

Figure 5 is a bottom perspective view of the mask sock of the first alternate embodiment of the present invention showing the non-skid sole pad layer attached to the bottom sole section of the foot engaging section of the sock member;

Figure 6 is a side perspective view of the mask sock of the second alternate embodiment of the present invention showing the mask sock in its assembled configuration and in operational use thereof;

5

10

Figure 7 is a side perspective view of the mask sock of the third alternate embodiment the present invention showing the mask sock in its assembled configuration and in operational use thereof; and

Figure 8 is a schematic representation of the method of manufacturing of the mask sock of the present invention showing the component steps necessary to form the mask sock.

# **DETAILED DESCRIPTION OF THE**

#### PREFERRED AND ALTERNATE EMBODIMENTS

The mask sock 10, 110, 210 and 310 and its component parts of the preferred and alternate embodiments of the present invention are represented in detail in Figures 1 through 7 of the patent drawings. The mask sock 10, 110, 210, and 310 are used by children, teens and adults for casual wear.

5

10

15

20

#### **PREFERRED EMBODIMENT 10**

As shown in Figures 1 to 3, the mask sock 10 includes a leg engaging section 20, an ankle engaging section 30, a foot engaging section 40, a non-skid sole layer 50, an outer mask layer 60 for forming a mask section M, and filler material 70. The leg engaging section 20 includes an opening 22 for receiving the various anatomical components of user's leg 12, being the calf 13, thigh 14, ankle 15, foot 16, toes 17 and heel 18. The leg engaging section 20 also includes a circumferential elastic-type holding band 24 for holding the mask sock 10 in place on the user's leg 12, as shown in Figure 1 of the drawings. The leg engaging section 20 further includes an outer surface 26 having an upper front section 28a, an upper rear section 28b, a lower front section 28c and a lower rear section 28d.

The ankle engaging section 30 is for engaging the ankle portion 15 of the user's leg 12 and includes an outer surface 32 having a front section 34, a rear section 36 and side sections 38a and 38b. The foot engaging section 40 is for engaging the toes 17 and heel portion 18 of the users' foot 16 and includes an outer surface 42 having a heel section 44, a

bottom sole section 46, an upper foot section 47 and a toe section 48, as shown in Figures 1 through 3 of the drawings.

Each of the sections 20, 30 and 40 of the mask sock 10 are integrally attached to each other to form the sock member 10s of the mask sock 10, as depicted in Figure 3. The sock member 10s may be made of various fabric materials selected from the group consisting of cotton, rayon, dacron, polyester, polyester-cotton, nylon, acrylic, acrylic microfibers, and combinations thereof. The mask sock 10 may be made of various lengths to cover the user's thighs, knees, below knee length, above ankle length and below ankle length for use by men, women and children, as depicted in various embodiments of Figures 1, 4, 6, and 7 of the drawings. The mask may have a design selected from the group consisting of animals, cartoon characters, insects, geometric patterns and the like.

5

10

15

20

The non-skid sole pad layer 50 includes an inner surface 52 and an outer surface 54 having non-skid protrusions, ridges or tabs 56 thereon, as shown in Figures 2 and 3 of the drawings. The inner surface 52 of the non-skid sole pad layer 50 is attached to the bottom sole section 46 of the foot engaging section 40 by attachment means that include stitching glueing, stapling or the like. The sole pad layer 50 is flexible and skid resistant for use by the wearer when the mask sock 10 is not worn with a sandal, shoe or slipper, such that the wearer can walk on sand, grass, dirt, gravel, wood floors and the like, as depicted by Figures 1 and 2 of the drawings.

The outer mask layer 60 includes an inner surface 62, an outer surface 64 and a perimeter edge 66 for stitching/sewing the mask section M to a particular pre-determined

position on sock member 10s of mask sock 10, as shown in Figures 1 and 3 of the drawings. Depending upon the actual length of the sock member 10s, the mask M can be attached to any section, such as sections 28a, 28b, 28c, 28d, 34, 36, 38a, 38b, 47 and 48, as shown in Figure 3 of the drawings. The mask layer 60 of mask section M can be made from materials selected from the group consisting of cotton, cotton-polyester, leather, fur, faux fur, linen, rayon, nylon, latex, moldable plastic and the like. The mask section M can be in the form of an animal, a human, a cartoon character, a bird, a fish and the like.

5

10

The filler material 70 is disposed between the outer surface 26, 32 or 42 of the leg, ankle or foot engaging sections 20, 30 or 40 and the inner surface 62, of the outer mask layer 60, as shown in Figures 2 and 3 of the drawings. The filler material 70 is made from polyester fiber filler F, as depicted in Figures 2 and 3 of the drawings.

#### FIRST ALTERNATE EMBODIMENT 100

The mask sock 110 and its component parts of the first alternate embodiments 100 of the present invention are represented in detail by Figures 4 and 5 of the patent drawings. Elements illustrated in Figures 4 and 5 which correspond to the elements described above with reference to Figures 1 through 3 have been designated by corresponding reference numbers increased by one hundred. The first alternate embodiment is constructed and operates in the same manner as the preferred embodiment 10, unless it is otherwise stated.

5

10

15

20

All aspects of the first alternate embodiment 100 are exactly the same as the preferred embodiment of the mask sock 10, except for the configuration and length of the sock member 110s and the placement of the mask section M on the upper front section 128a of leg engaging section 120, as depicted in Figure 4. The remaining component parts are exactly the same as the component parts of the mask sock 10 of the preferred embodiment.

# **SECOND ALTERNATE EMBODIMENT 200**

The mask sock 210 and its components parts of the second component parts of second alternate embodiment 200 of the present invention are represented in detail by Figure 6 of the patent drawings. Elements illustrated in Figure 6 which correspond to the elements described above with reference to Figures 1 through 3 have been designated by corresponding reference numbers increased by two hundred. The first alternate embodiment is constructed and operates in the same manner as the preferred embodiment 10, unless it is otherwise stated.

All aspects of the second alternate embodiment 200 are exactly the same as the preferred embodiment of the mask sock 10, except for the configuration and length of the sock member 210s and the placement of the mask section M on one of the side sections 238a or 238b of the ankle engaging section 230, as depicted in Figure 6. Also, there is no attachment of a non-skid sole pad layer 50 to the bottom sole section 246 of the foot engaging section 240. The remaining component parts are exactly the same as the component parts of the mask sock 10 of the preferred embodiments.

#### THIRD ALTERNATE EMBODIMENT 300

The mask sock 310 and its component parts of the third alternate embodiment 300 of the present invention are represented in detail by Figure 7 of the patent drawings. Elements illustrated in Figure 7 which correspond to the elements described above with reference to Figures 1 through 3 have been designated by corresponding reference numbers increased by three hundred. The first alternate embodiment is constructed and operates in the same manner as the preferred embodiment 10, unless it is otherwise stated.

15

20

5

10

All aspects of the third alternate embodiment 300 are exactly the same as the preferred embodiment of the mask sock 10, except for the configuration and length of the sock member 310s and the placement of the mask section M on the rear section 336 or heel section 344 of the ankle engaging section 330 or the foot engaging section 340, respectively, as depicted in Figure 7 of the drawings. Also, there is no attachment of a non-skid sole pad layer 50 to the bottom sole section 346 of the foot engaging section 340. The remaining component parts are exactly the same as the component parts of the mask sock 10 of the preferred embodiment.

# METHOD OF MANUFACTURING 100 OF THE MASK SOCK 10

The method of manufacturing the mask sock 10, as shown in Figure 8, includes the following steps of assembly 100:

STEP 1: The sock member 10s is fabricated by standard milling operations to form various sized socks from materials such as cotton, rayon, dacron, polyester, polyester-cotton, nylon, acrylic, acrylic microfibers, and combinations thereof.

STEP 2: The outer mask layer 60 is molded to form a mask section M using an injection molding machine.

STEP 3: The outer mask layer 60 is die cut.

5

10

15

STEP 4: The perimeter edge 66 of the outer mask layer 60 is attached to a predetermined location on the outer surface 26, 32 or 42 of the leg, ankle or foot engaging sections 20, 30 or 40, respectively, by connecting means such as glueing, stapling and/or stitching, as depicted in Figures 1, 4, 6 and 7 of the drawings.

STEP 5: The filler material 70 is disposed between the outer surface 26, 32 or 42 of the leg, ankle or foot engaging sections 20, 30 or 40, respectively, and the inner surface 62 of the outer mask layer 60, as depicted in Figures 2 and 3 of the drawings.

STEP 6: The inner surface 52 of the non-skid sole pad layer 50 is attached to the bottom sole section 46 of the foot engaging section 40 by attachment means that include gluing, stapling or stitching, as depicted in Figures 2 and 3 of the drawings.

STEP 7: Other types of mask designs 80 may be cartoon characters, animals, fish, insects, geometric patterns and the like which are attached to the outer surfaces 26, 32 and/or 42 of the leg, ankle and/or foot engaging sections by attachment means that include gluing, stapling, or stitching, as depicted in Figures 1 and 2 of the drawings.

#### **ADVANTAGES OF THE PRESENT INVENTION**

Accordingly, an advantage of the present invention is that it provides for a method of manufacturing a mask sock that includes the attachment of an outer latex layer, which forms a mask, to a predetermined location on the outer surface of a sock member of the mask sock.

Another advantage of the present invention is that it provides for a mask sock that includes a mask section that is in the form of an animal, a human, a cartoon character, a bird, a fish and the like.

5

10

15

Another advantage of the present invention is that it provides for a mask sock that includes a mask section that is made from materials selected from the group consisting of cotton, cotton-polyester, leather, fur, faux fur, linen, rayon, nylon, latex, plastic and the like.

A further advantage of the present invention is that it provides for a method of manufacturing a mask sock that can be mass produced in an automated and economical manner and the mask sock is readily affordable by the consumer.

A latitude of modification, change, and substitution is intended in the foregoing disclosure, and in some instances, some features of the invention will be employed without a corresponding use of other features. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the spirit and scope of the invention herein.